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Trends in Soviet Military Manpower

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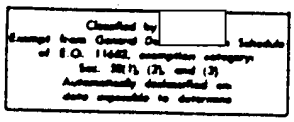

Trends in Soviet Military Manpower

Central Intelligence Agency
Directorate of Intelligence

September 1977

Key Judgments

The Soviet armed forces today, according to our estimates, total about 4.6 million men, more than double the number in the US armed forces. The level of military manpower has been increasing since the early sixties and has grown by a half million men since 1968.

About 3.9 million men presently serve in the USSR's Ground Forces, Air Forces, Air Defense Forces, Strategic Rocket Forces, Navy, and national command and support structure. Soviet military Construction and Transportation Troops, which have no direct equivalent in the US armed forces, currently include approximately 370,000 uniformed troops. An additional 340,000 men are assigned to the militarized security forces subordinate to the Committee for State Security and the Ministry of Internal Affairs. In addition to uniformed military personnel, an estimated 680,000 civilians currently work for the Soviet Ministry of Defense and the militarized security forces.

The growth in Soviet military manpower over the past 10 years has been driven in large part by the continuing expansion and modernization of the Ground Forces. Additions of men to the Ground Forces have accounted for about 65 percent of the total military manpower growth between 1968 and 1977. Nonetheless, each of the major force elements in the military, except the Strategic Rocket Forces, has expanded to some extent and the distribution of manpower among the services has remained relatively constant during the period.

On the basis of current manning practices and anticipated weapons deployment programs, we expect the total number of uniformed men in the Soviet armed forces to grow only slightly to about 4.7 million by 1985. This change will be led by a continued expansion of the Soviet Ground Forces, but offset somewhat by declines in the Air Defense Forces, the Strategic Rocket Forces, and the Navy.

The Soviet military system depends on conscription to provide about 65 to 75 percent of its total military manpower. Demographic pressures, however, will soon require some adjustments in current manpower policies and practices in order to maintain military forces at projected levels. Beginning in 1978, the number of men reaching conscription eligibility each year--a group that also provides the major portion of new labor resources--will begin to decline. At the same time, the manpower needs of both the armed forces and the civilian economy will continue to grow.

The resulting competition between the two sectors for labor resources may be intensified by qualitative considerations. Future population growth is expected to center in the Central Asian, Kazakh, and Transcaucasian Republics. These republics are populated by ethnic minorities who at present are ill equipped to deal with the technological complexities of the armed forces.

We do not believe that major adjustments in current military manpower policies would be required to maintain anticipated manning levels. Soviet military manpower requirements probably can be met by pursuing some combination of options, including lowering the number of conscription deferments, retaining greater numbers of military career service personnel, extending the term of conscripted service, and supplementing full-time soldiers with reservists recalled to active duty for short periods. Recent changes to the military service law, including extension of obligatory service for conscripts with higher education, suggest that the Soviets have already begun to face up to the problem.

While some combination of these options probably would enable the Soviets to meet their military needs, any of them would result in the military's commanding a greater proportion of the USSR's new labor resources than it currently does. There will be resistance to this from managers of the civilian economy as the competition for labor resources increases. Certainly, pressures will exist within the Soviet hierarchy to reduce the size of the armed forces. In deciding how to alleviate strains in the civilian economy, however, the Soviets are unlikely to forgo what they perceive to be an adequate defensive capability.

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PREFACE

This report traces the growth of Soviet military manpower levels over the past 10 years and examines variations in the allocation of manpower among the USSR's armed services and military support elements. The allocation of manpower within the defense establishment provides an indicator of the size, priorities, and rate of change of the total military effort of the USSR. Additionally, the report discusses demographic problems which Soviet military manpower planners will face in the future.

The point of departure for this report was a joint study on the subject completed by CIA and the Defense Intelligence Agency in early 1975.[1] That study was the first detailed reassessment of Soviet military manpower since the late sixties.

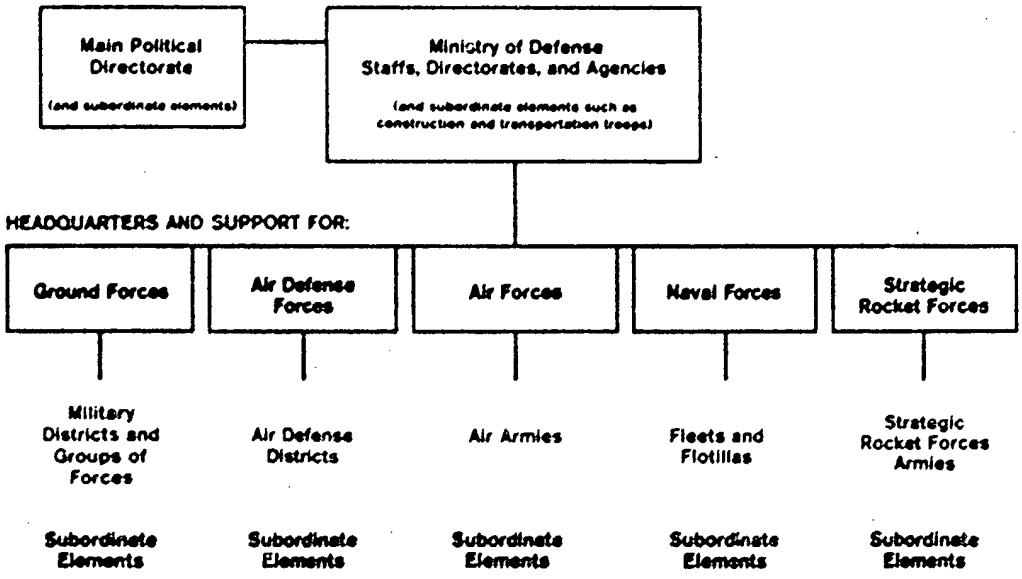
During the next two years, CIA conducted an intensive research effort to improve the 1975 estimate and to develop a time series. This effort focused on improving our understanding of the organization of the Soviet armed forces and deriving more accurate manning factors. These manning factors were applied to organizational units of the armed forces and to order of battle information. The CIA work dealt primarily with data from human source reports, and with supporting information from unclassified Soviet writings and [redacted] Because most of these sources provided only low-level or extremely fragmented information, estimates of manning in organizational units for which manpower data are incomplete reflect extrapolation based on analytical judgments.

Despite the uncertainties stemming from limited information and definitional ambiguities, we believe that our estimates of aggregate military personnel levels accurately portray the growth pattern of the past 10 years and that this estimate for the middle 1970s is within 15 percent of the actual figure. This assessment, however, is based on subjective judgment rather than on a rigorous statistical analysis of uncertainty. Estimates of manning levels for some units, especially front-line combat units, are thought to be relatively more accurate, while others, such as those for many support elements, are less so. We generally have less confidence in the accuracy of our estimates of civilians working for the Ministry of Defense, because these are based on less data and analysis than our estimates for military personnel.

A brief discussion of the method used by the CIA to derive its manpower estimates can be found in the Annex, beginning on page 13.

Major Categories of Military Manpower Subordinate to the Ministry of Defense

FIGURE 1



NOTE: Although the militarized security forces are discussed in this report, they do not appear here because they are subordinate either to the Committee for State Security or the Ministry of Internal Affairs, not the Ministry of Defense.

Trends in Soviet Military Manpower

Soviet Military Manpower: 1968-1977

Organization

The Soviet military manpower structure includes seven major functional groups—five armed services, the national command and support organizations, and the militarized security forces[2] (see figure 1). Each of these functional groups includes uniformed personnel and civilians.

The five services are the Ground Forces, Air Defense Forces, Air Forces, Navy, and the Strategic Rocket Forces. Each has its own command authority with combat and direct support elements subordinate to it. The national command and support category includes personnel filling command and staff positions in the Ministry of Defense, General Staff, and Main Political Administration, and troops assigned central support functions. These functions include the construction of military facilities and the transportation of military men and materiel. The militarized security forces consist of the Border Guards and the Signal Troops of the Committee for State Security (KGB) and the Internal Troops of the Ministry of Internal Affairs (MVD).

Overview of Manpower Trends

Published Soviet data indicate that at the end of World War II, the armed forces of the USSR totaled just over 11 million men. Rapid demobilization brought the total down to less than 6 million in 1950. The size of the armed forces increased sharply during the early fifties as a result of the Korean conflict but declined steadily thereafter to slightly more than 3 million men in mid-1960.

The last major cutback began in 1960 when Premier Khrushchev announced plans to reduce the number of armed forces personnel by 1.2 million between January 1960 and the end of 1961. This cutback resulted from Khrushchev's desire to change the composition and structure of the armed forces. He wanted to deemphasize traditional manpower-intensive military forces in favor of smaller forces equipped with advanced weapons systems.

In June 1961, Khrushchev indicated publicly that the demobilization had been halted temporarily. Some Soviet writers have suggested that the planned reductions were later resumed and eventually completed. Information from other sources tends to confirm that demobilization did occur during the period, but it is not firm enough to verify that reductions of the magnitudes described by the Soviets were made.

After 1961 the size of the armed forces began to grow in response to several events:

- Following the ouster of Premier Khrushchev and what many observers interpreted as Soviet backdowns in both the Berlin and Cuban crises, the Soviets began to revitalize their general purpose military forces.
- Increased tensions with China throughout the middle sixties created larger demands for troops along the Sino-Soviet border.
- An earlier Soviet belief that any major confrontation with NATO would quickly

[2] Personnel assigned to the militarized security forces are not administratively subordinate to the Ministry of Defense. They are included in this report because the Soviets include them in their legal definition of the armed forces of the USSR. Men in these elements receive a form of basic military training similar to that of the regular armed forces, are equipped with light military weapons, and perform military functions during wartime. In addition, service in these elements fulfills the Soviet military service obligation as defined by the 1967 *Law on Universal Military Service*.

escalate to the level of nuclear exchange began to give way to the view that a conventional war of some duration was possible.

We estimate that by 1968, Soviet uniformed military manpower stood at just over 4.1 million men.[3] Over 3.1 million of these were assigned to the five armed services; some 660,000, including about 370,000 Construction and Transportation Troops, were categorized as national command and support personnel; and about 330,000 were militarized security forces of the KGB and MVD.

Today we estimate that the USSR has about 4.6 million men in the military. The five armed services account for 3.6 million; national command and support elements, including Construction and Transportation Troops, make up an additional 710,000; and militarized security forces about 340,000 (see figure 2).

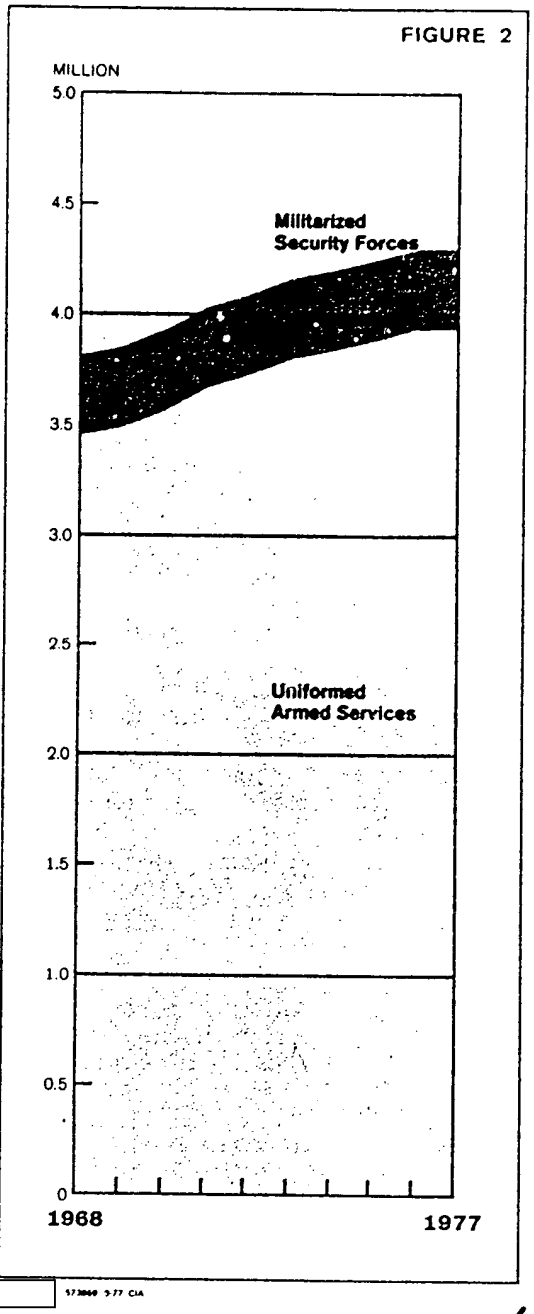
The growth of military manpower over the past 10 years has resulted primarily from continuing expansion and modernization of the Ground Forces. Additions to the Ground Forces have accounted for about 65 percent of the total military manpower growth during the period, reflecting the long-standing Soviet commitment to maintain a strong army. Because each of the major force elements in the military, except for the Strategic Rocket Forces, also expanded to some extent between 1968 and 1977, the allocation of men among the services has not changed significantly. This situation contrasts with that in the early 1960s, when the Strategic Rocket Forces expanded rapidly at the expense of conventional forces.

In addition to uniformed military personnel, the Ministry of Defense and the militarized security forces employ a large number of civilians. We estimate that some 680,000 civilians currently are employed in support positions among all seven of the major functional groups, up from 610,000 in 1968.

[3] Figures represent midyear totals.

Growth Pattern of Military Manpower, 1968-1977

FIGURE 2



Disposition of Military Manpower, 1968-1977*

In Thousands

	1968	1969	1970	1971	1972	1973	1974	1975	1976	1977
Ground Forces	1,430	1,430	1,470	1,550	1,590	1,670	1,700	1,720	1,720	1,760
Air Defense Forces	550	570	560	560	560	560	560	560	580	590
Air Forces	460	460	470	480	480	490	490	500	520	530
Navy	360	360	370	380	380	380	380	380	380	390
Strategic Rocket Forces	370	380	390	400	400	390	390	380	380	330
National Command and Support	290	300	310	310	310	310	310	320	330	340
Subtotal	**3,450**	**3,490**	**3,560**	**3,670**	**3,720**	**3,800**	**3,840**	**3,880**	**3,920**	**3,940**
Construction and Transportation Troops	370	370	370	370	370	370	370	370	370	370
Subtotal	**3,820**	**3,860**	**3,930**	**4,040**	**4,010**	**4,170**	**4,210**	**4,250**	**4,300**	**4,310**
Militarized Security Forces	330	330	330	330	330	330	330	340	340	340
Total	**4,150**	**4,190**	**4,270**	**4,370**	**4,430**	**4,500**	**4,540**	**4,580**	**4,640**	**4,640**

* Totals are derived from unrounded figures and may not equal the sum of the components.

Individual Force Elements[4]

Ground Forces

The main combat element of the Soviet Ground Forces is the division, of which there are three types–motorized rifle, tank, and airborne. These divisions are controlled by corps, army, and military district headquarters and by an extensive command and support organization. In 1977, the Ground Forces included 171 line divisions, 22 mobilization divisions[5], 33 corps and army headquarters, and miscellaneous command and support elements.

Over the past 10 years the ground forces have grown by nearly 25 percent–from just under 1.43 million men to over 1.76 million (see figure 3). This growth reflects a continuing desire to modernize and expand the capabilities of the Ground Forces, as well as an ad hoc response to international events.

Plans to modernize the Ground Forces probably were formulated in the early 1960s. Increasing tensions along the border with China, however, delayed implementation of these plans. Instead, the Soviets began to establish new combat divisions and to move existing divisions to the border areas. Most of this buildup was completed by the end of 1969. The invasion of Czechoslovakia in 1968 prompted the Soviets to flesh out some of their cadre strength divisions, further increasing Ground Forces manpower totals.

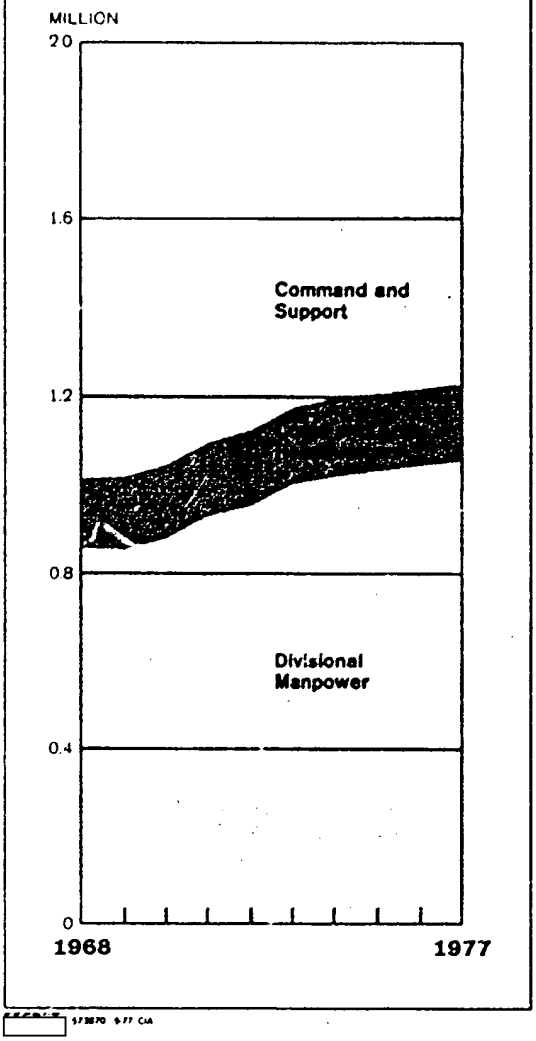
Expansion and modernization of the Ground Forces probably began in 1966 and continued thereafter, despite disruptions from situations like the Sino-Soviet border dispute. There were numerous changes during the next seven years; the estimated table of organization for motor-

[4] Manpower estimates discussed in individual force elements include only uniformed military personnel.

[5] A mobilization division consists of a planning staff or command element and administrative and maintenance support personnel–numbering about 200 people–who may be colocated with an active division. A mobilization division may also have a stock of equipment parked in typical divisional arrangements.

Ground Forces
Military Manpower, 1968-1977

FIGURE 3



ized rifle divisions increased by over 2,000 men, while that for tank divisions rose by about 1,500. These changes, some of which are continuing, reflected in part an increase in the number of tanks, armored personnel carriers, and artillery pieces at the regimental level. Ground Forces support personnel strengths also grew as training regiments were added at the army level and the logistics structure was expanded.

Air Defense Forces

Air Defense Forces (PVO) are composed of surface-to-air missile (SAM) units, antiballistic missile (ABM) and antisatellite units, interceptor aircraft regiments, radio-technical troops, and several other command and support elements. Their primary task, of course, is to defend the homeland against air and missile attack. The Soviets' emphasis on these tasks is reflected in the large commitment of military manpower to air defense. The PVO is the second largest branch of service.

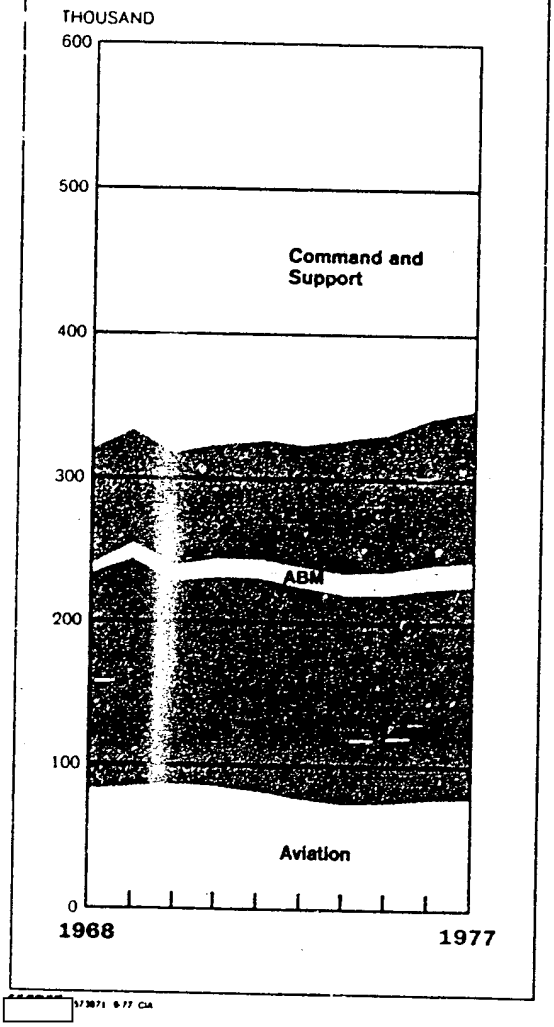
Over the past 10 years, active-duty PVO manpower has grown by over 40,000 to about 590,000 (see figure 4). These men operate and maintain some 1,240 SAM sites, 2,600 interceptor aircraft, and over 1,100 early warning and ground-controlled intercept (EW/GCI) sites.

The numbers of SAM sites and their associated manpower rose through the late sixties and early seventies as the deployment of new SAM systems more than offset reductions in the number of deployed SA-2 sites. Since 1971, however, the overall numbers of SAM sites and men have remained relatively stable, as SA-2 site deactivations have compensated for the continuing deployment of the more modern SA-3 and SA-5 missile systems.

Interceptor aircraft inventories assigned to the PVO declined through the early seventies as the Soviets retired large numbers of obsolescent aircraft and replaced them with fewer but more capable ones. Since 1974, the number of interceptors subordinate to the PVO has remained relatively constant, although the composition of the force has continued to change. Manpower associated with these systems also declined through the early seventies but has gradually begun to increase. The growth in manpower, despite a fairly stable number of aircraft, resulted from the replacement of older aircraft with new interceptors with more complex sub-

Air Defense
Military Manpower, 1968-1977

FIGURE 4



systems which require greater numbers of people to ensure adequate maintenance.

Since 1968 the number of men assigned to PVO EW/GCI sites has increased by more than 30 percent. This growth reflects an effort to ensure more effective command and control of the operating forces. Additionally, the initial deployment of operational ABM units, which began in 1966, added a new category of manpower to the PVO.

Air Forces

The Soviet Air Forces are composed of central command and support elements and three major aviation elements—Frontal Aviation, Military Transport Aviation, and Long Range Aviation. Each of these elements has its own command and support apparatus.

The manpower strength of the Air Forces has grown from about 460,000 in 1968 to about 530,000 in 1977. The increases result primarily from a buildup of tactical aviation units and from an increase in the airlift capabilities of Military Transport Aviation (see figure 5).

Frontal Aviation. Frontal Aviation provides tactical air support to the Ground Forces. To accomplish this, military manpower in Frontal Aviation—which has about 4,500 aircraft, an increase of 35 percent over the 1968 inventory—has increased from about 180,000 to about 240,000. The growth in the number of men and the introduction of a new generation of more capable aircraft have enabled the force to shift from an almost exclusively defensive orientation to a more balanced mix of offensive and defensive capabilities.

Military Transport Aviation. The aircraft assigned to Military Transport Aviation provide the logistic air support required by the rest of the armed forces. Personnel assigned to this element have increased from about 70,000 in 1968 to about 110,000 today.

The major part of this growth accompanied a twofold increase in the number of general purpose helicopters assigned to Transport Aviation. The remaining increases reflect the steady procurement of additional medium- and long-range transport aircraft by this air force element.

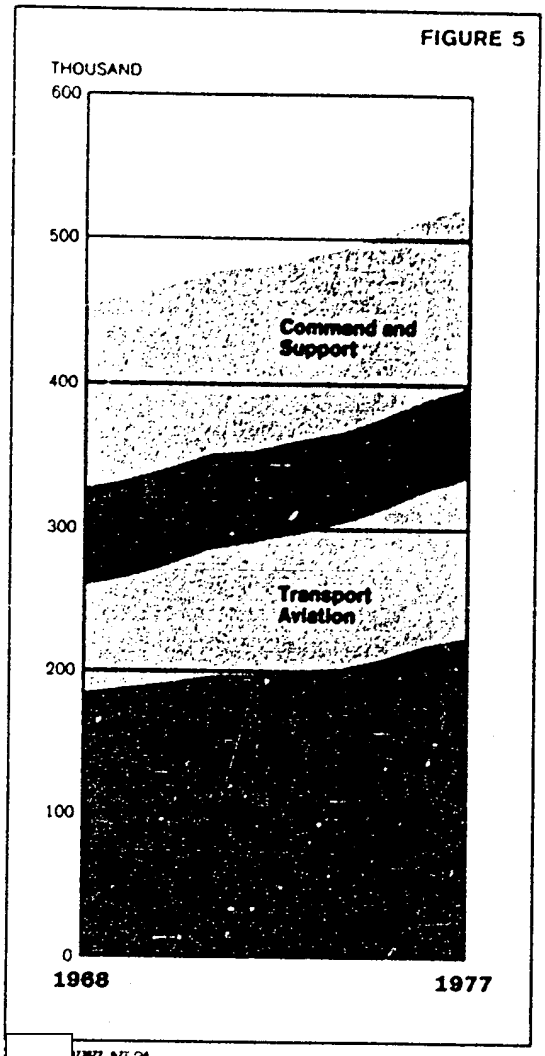
Long Range Aviation. The medium- and long-range bombers of Soviet Long Range Aviation are tasked with carrying out air strikes against enemy targets in Europe, Asia, and

North America. The number of personnel assigned to it declined steadily through the 1960s as land- and sea-based strategic missile forces assumed an increasing portion of the USSR's strategic deterrence mission.

Over the past decade, the number of men assigned to Long Range Aviation has declined slightly to just over 60,000 in 1977. This decrease parallels reductions in the number of aircraft, particularly medium-range bombers, in the force.

Air Forces Military Manpower, 1968-1977

FIGURE 5

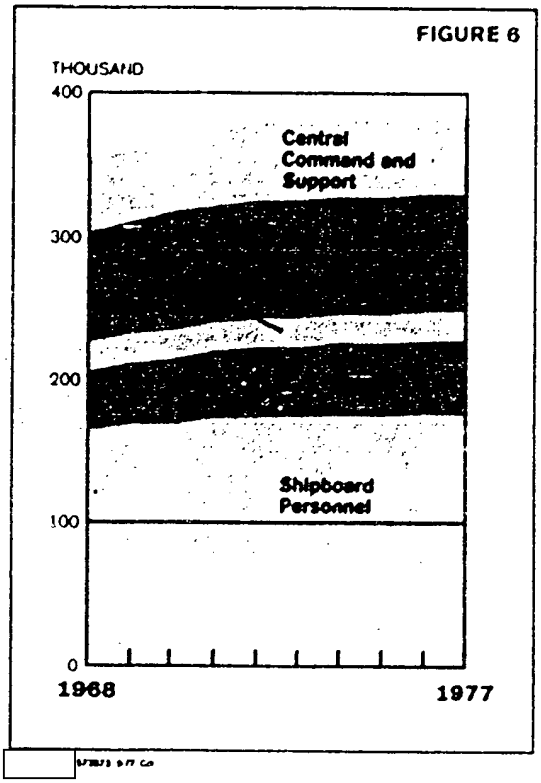


Navy

The Soviet Navy has a wide range of responsibilities and requires different types of forces to accomplish them. These forces include surface ships and submarines, naval aviation, naval infantry, coastal defense units, and their associated specific command and support elements, including fleet and flotilla staffs and rear services organizations. In addition, the Navy has a command and support structure consisting of personnel assigned to positions in the national

Naval Military Manpower, 1968-1977

FIGURE 6



naval command apparatus and to subordinate support functions.

Over the past 10 years, the number of uniformed personnel assigned to the Navy has grown from approximately 360,000 to almost 390,000 men (see figure 6). This relatively small increase, however, does not reflect the rapid growth of naval capabilities and responsibilities through the period. Since the middle sixties, the Navy has been transformed from a force oriented toward defense of Soviet coastal waters to one capable of carrying out a variety of missions in more distant seas.

Strategic Rocket Forces

The Strategic Rocket Forces (SRF) are composed of operational units (equipped with medium-range, intermediate-range, and intercontinental-range ballistic missiles) and miscellaneous command and support elements. Created as a separate branch of service in the late 1950s, the SRF grew rapidly through the 1960s and peaked at about 400,000 men in 1972, declining since then to a current level of just over 330,000 (see figure 7).

The rapid growth in estimated SRF manpower was caused by two separate developments. In the early sixties a rapid buildup in the numbers of MRBMs and IRBMs caused a corresponding buildup in force manpower. In the middle sixties the Soviets began a rapid deployment of ICBM systems; this continued the growth pattern and more than offset a slight decline in the numbers of MRBM and IRBM units after 1965.

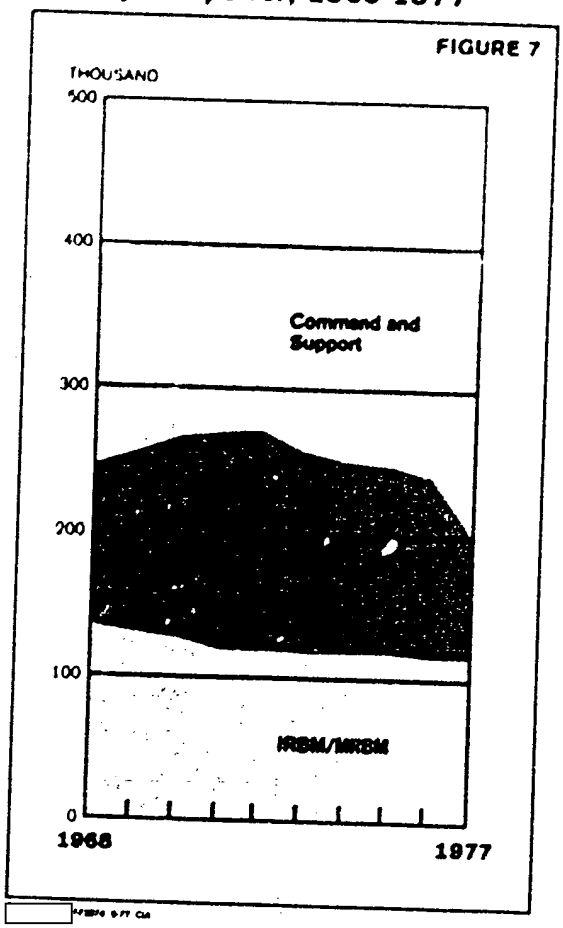
The main factor in the manpower reduction since 1972 has been the dismantling of some of the older launch facilities—especially the manpower-intensive version of the SS-7 ICBM system that was launched from soft sites—to comply with the terms of the Strategic Arms Limitation Agreement.

National Command and Support

Personnel grouped in the national command and support category are those assigned to the offices and staffs of the Ministry of Defense, the Main Political Directorate, and the General Staff

Strategic Rocket Forces Military Manpower, 1968-1977

FIGURE 7

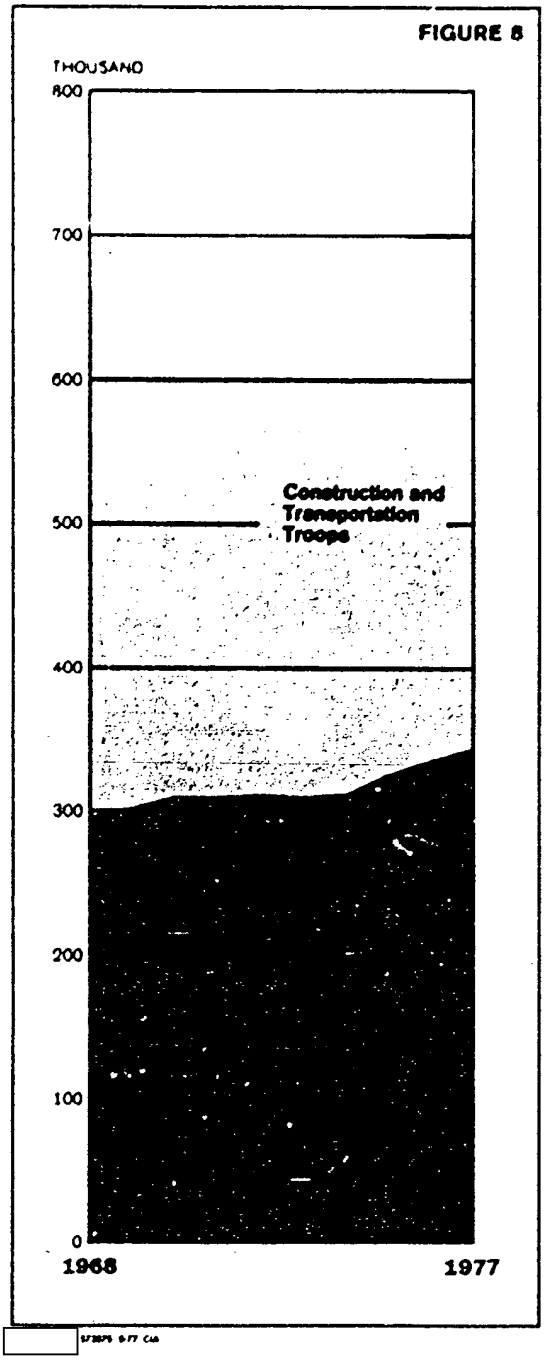


as well as Construction and Transportation Troops. Construction and Transportation Troops, which have no direct equivalent in the US armed forces, account for just over half of the men in this category. In the aggregate, the number of uniformed men assigned to national command and support elements grew from about 660,000 to 710,000 between 1968 and 1977 (see figure 8).

Four elements account for about 85 percent of this increase. The number of Ministry of Defense Signal Troops rose markedly, reflecting Soviet efforts to strengthen the command and

National Command and Support Military Manpower, 1968-1977

FIGURE 8



control network. Another area of growth was in the number of Soviet military advisers stationed abroad—an indication of the USSR's increasingly active military assistance program. The military political schools subordinate to the Main Political Directorate also expanded through the late sixties as the Soviets sought to improve the training of officers whose task it was to ensure political conformity within the armed forces. Somewhat smaller gains were recorded in the number of personnel assigned to sensitive operations complexes subordinate to the 12th Chief Directorate, as the Soviets continued to construct such facilities through 1974.

Militarized Security Forces

Militarized security forces include the KGB Border Guards and the MVD Internal Troops. The Border Guards are responsible for patrolling the USSR's 65,000 kilometers of land and water borders. The MVD Internal Troops are responsible for maintaining public order and for guarding government installations and correctional facilities.

About 340,000 men are assigned to these forces. The nature of their responsibilities is relatively static, and we estimate that these security forces have not changed in size significantly during the past 10 years.

Civilians

The Ministry of Defense and the militarized security forces employ a large number of civilians, who work in all branches of the armed forces and in national-level support positions (see table). Over the past 10 years, the number of civilians working for the Ministry of Defense has grown from 590,000 to about 660,000 men, while the number employed by the militarized security forces has remained relatively constant at about 20,000.

Our estimates of civilians working for the armed forces generally are based on less information than those of uniformed military personnel. Several types of institutions subordinate to the Ministry of Defense—special research institutes and military farms, for example—report-

Civilian Employees of the Ministry of Defense and Militarized Security Forces, 1977

Ground Forces	260,000
Air Defense Forces	30,000
Air Forces	100,000
Navy	110,000
Strategic Rocket Forces	40,000
National Command and Support	100,000
Subtotal	**640,000**
Construction and Transportation Troops	20,000
Subtotal	**660,000**
Militarized Security Forces	20,000
Total	**680,000**

edly employ civilians, but these institutions have not been included because we are unable to estimate the number of their employees. The inclusion of these categories could significantly increase our estimate of civilian employment in the Ministry of Defense.

The Conscription System

One of the prominent features of the Soviet military manpower procurement system is its dependence on conscription. We estimate that conscripts provide about 65 to 75 percent of total uniformed military manpower.

Conscription is governed by the 1967 Law on Universal Military Service. Under its terms, most conscripts serve for two years. Those assigned to shipboard billets of the Navy or seagoing elements of the Border Guards serve three years. Recently, the Soviets changed the section of the draft law pertaining to conscripts with higher (college-equivalent) education. These men now are obligated to serve for 18 months (two years for naval service) instead of one year as stipulated in the 1967 law. Induction of conscripts takes place twice a year—in the spring and fall.[6]

[6]Under the previous Soviet draft law, promulgated in 1939, conscripts had to serve for three or four years depending on the branch of service to which they were assigned. Additionally, the old law required that induction occur only once a year.

The use of conscription to supply most of their military manpower has advantages and disadvantages for the Soviets. Conscription provides large numbers of able-bodied young men to the armed forces at low monetary cost. It also provides a large pool of experienced military reservists who are available for mobilization in times of crisis. Moreover, the Soviets believe this almost universal conscription is a good vehicle for the political indoctrination of a large number of its citizens.

On the other hand, the reliance on short-term draftees to supply the bulk of defense manpower contributes to the armed forces' perennial shortage of skilled personnel.[7] This problem, which is discussed periodically in Soviet writings, could impair the ability of the armed forces. The effects of these shortages may become worse as the Soviets continue to modernize their armed forces by introducing more complex weapons systems.

Demographic Pressures

The armed forces compete with civilian industry for young men entering the labor force. Demographic pressures may increase the intensity of this competition in the 1980s. While the manpower needs of both the armed forces and civilian industry are expected to grow, the supply of new labor resources is expected to fall.

The Soviets have faced this situation before. During the late fifties and early sixties, Soviet planners dealt with a labor shortage resulting from the low World War II birthrates by a series of institutional adjustments. These included encouraging housewives to return to work, eliminating one grade in the public school system, and permitting pensioners to work without loss of annuity.

The Soviets' treatment of labor problems in the early 1960s removed so much slack from the

[7]Shortages also result from the inability of the Soviets to retain significant numbers of trained personnel in the armed forces. They have had little success in persuading soldiers and sailors to reenlist. Soviet military service is harsh and demanding, and few enlisted personnel are inclined to make military life a career.

labor pool that the only significant remaining source of new labor was young people just entering the work force. It is this source of labor that will decline in the years ahead.

Competition between civilian and military uses of manpower is not new to the Soviets. The consequences of manpower losses and the low birthrate in World War II were first felt during the late fifties. The annual supply of 19-year-old males (the draft age at that time) dropped by about 60 percent—from 2.4 million in 1955 to less than 1 million in 1961. The impact of this decline was softened, however, by concurrent reductions in the size of the armed forces. Moreover, during that time the draft law required most conscripts to serve three years. This meant that shortages of personnel in one year could be eased by spreading them over two others.

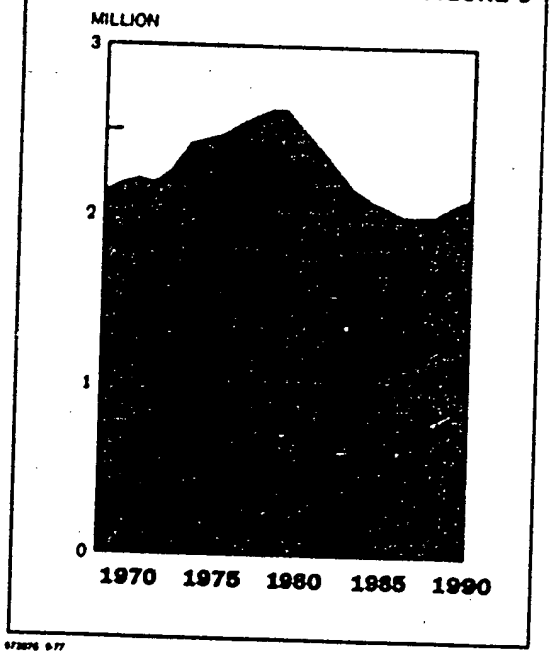
By the middle 1960s, the yearly conscript pools, or cohorts[8], rose to over 2 million for the first time in 10 years. The cohort size has continued to rise slowly to its current level of nearly 2.6 million. This steady rise in the number of 18-year-olds gave the Soviets the flexibility to modify their draft law in 1967 and has allowed them to interpret more liberally the provisions in that law permitting deferments from conscripted service for continuation of education, family hardship, or medical unsuitability. We estimate that over the past 10 years, the Soviets have drafted between 65 and 75 percent of each cohort in order to maintain the armed forces at these manning levels.

In the coming decade the numbers of 18-year-olds available each year will fall to 1967 levels. The cohort size is expected to drop from a high of over 2.6 million in 1978 to about 2 million in 1985[9], and to remain near that level through the remainder of the 1980s (see figure 9).

The USSR's manpower problem is even more serious when qualitative considerations are taken into account. The only areas expected to show significant population growth in the future are the Central Asian, Kazakh, and Transcaucasian Republics—areas where industrialization and urbanization have been relatively slow and where Russian is not the native language. Incorporation of these peoples into the mainstream of modern society—and the armed forces—in a politically acceptable manner is a problem that Soviet planners are being forced to confront.

Numbers of Soviet Males Reaching Draft Age Yearly, 1968-1990

FIGURE 9



Prospects

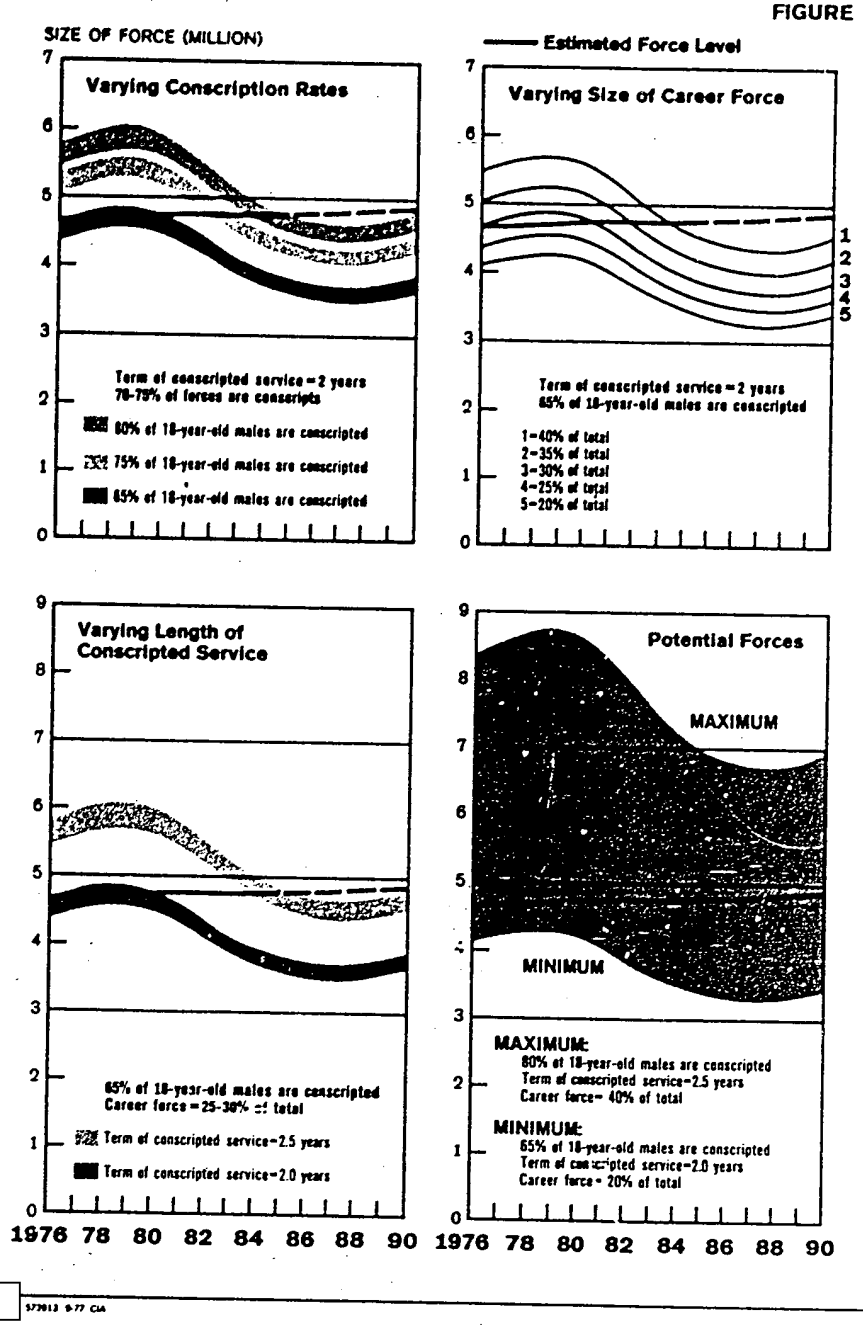
Estimates of Soviet military manpower requirements through the middle 1980s reflect our belief that existing programs will continue and that new and more complex conventional and strategic weapon systems will be deployed. Estimates of the manpower required to operate these weapon systems are derived using existing manning factors for currently deployed units

[8] In this context, a cohort is defined as the total number of Soviet males who reach draft age in a given year.

[9] Information on cohort sizes has been derived from unpublished data of the Foreign Demographic Analysis Division, Bureau of Economic Analysis, US Department of Commerce.

Alternatives for Meeting Future Military Manpower Needs, 1976-1990

FIGURE 10



and predicted manning estimates for future weapons.

On this basis, we expect the number of men assigned to the armed forces to continue to grow only slightly by 1985 to a level of roughly 4.7 million men, a net increase of less than 100,000.

Manpower requirements for some of the individual force elements are expected to continue to increase in the future. Specifically:

- The Ground and Air Forces are expected to continue to grow through the next 10 years as additional units are added.
- The number of men assigned to the Air Defense Forces is expected to grow through the remainder of the 1970s as new aircraft are added. Air Defense manpower should decline thereafter, however, as less manpower-intensive SAM systems replace older ones.

The growth in the preceding areas will more than offset the following projected declines in individual force manpower requirements:

- The SRF is expected to continue to lose manpower through the early 1980s. If newer missile systems—particularly mobile types—enter the force in larger numbers, SRF manpower will again grow.
- Naval manpower is expected to decline through the 1970s and to remain relatively stable from 1980 to 1985. The number of men in shipboard billets is expected to decline throughout the period as older units are replaced by fewer, more capable ships. Between 1980 and 1985, an expected increase in the number of men assigned to naval aviation and the naval infantry should offset this decline.

Maintenance of these projected military force levels will require adjustments in Soviet manpower practices because of the declining supply of young men. From the military point of view, expected shortfalls of conscripts through 1985 and even beyond are not so great, however, that these adjustments would have to be major. The Soviets could tighten up on deferments, retain greater numbers of career service personnel (although attempts in the past to do this have not been satisfactory), extend the term of conscripted service by six months, and supplement the number of full-time soldiers by recalling reservists to active duty for short periods (see figure 10).

Recent changes in the 1967 Universal Military Service Law appear to be aimed at strengthening the armed forces. These changes include the extension of required service for conscripts with college-level education and the premilitary training of youth during, rather than after, working hours. Both of these moves tend to rob the civilian manpower pool in order to help meet military requirements.

Although the Soviets could meet their military manpower needs by using some combination of the options mentioned above, any of these choices would require the military to command a greater proportion of the USSR's new labor resources. This will surely be challenged by the managers of the civilian economy as the competition for scarce labor resources grows. Certainly, pressures will exist within the Soviet hierarchy to reduce the size of the military. While the Soviets are unlikely to forgo what they perceive to be an adequate defense capability, they will face increasingly difficult choices in their attempts to alleviate strains in the civilian economy.

Comments and queries regarding this publication are welcome.

ANNEX

The CIA Method of Estimating Soviet Military Manpower

The CIA uses an organizational model—patterned after what we believe to be the organization of the Soviet Ministry of Defense—to derive its estimates of Soviet military manpower. The model has seven major subelements—national command and support, five subordinate military services, and the militarized security forces. Detailed estimates are made of the numbers (order of battle) and manning levels of each of the approximately 900 components identified in the model.

Manpower levels associated with each component are calculated by multiplying order of battle data by the appropriate manning factors. The totals thus derived are summed to arrive at the estimated size of the entire defense establishment.

The accuracy of order of battle estimates is dependent on how well organizational units can be identified and counted. The order of battle for major surface ships, for example, is accurate because these units are visible. In the case of air units, however, the order of battle is less obvious and estimated aircraft inventories are less certain. The order of battle estimates for many support and national command elements are even more tenuous, because there is little information on the size or structure of these units.

The quality of the manning factors estimated for the components of the model varies greatly according to the data available to support them. The evidence on which these factors are based is often fragmentary and sometimes contradictory. Moreover, calculation of manning factors is complicated in cases where units of a given type are manned at different levels. In these cases, average manning factors are used.

The level of confidence in manpower estimates of individual components generally is highest for front-line combat units such as ground force divisions. Enough information on most of these units is available to support accurate estimates of order of battle and manning factors. Confidence levels of manpower estimates for command and support components often are lower, however, because their organizational structures are harder to determine and relatively little information is available on the manpower—both military and civilian—assigned to them.